

Title (en)
ELECTROLYTIC SOLUTION AND ELECTROCHEMICAL DEVICE

Title (de)
ELEKTROLYTLÖSUNG UND ELEKTROCHEMISCHE VORRICHTUNG

Title (fr)
SOLUTION ÉLECTROLYTIQUE ET DISPOSITIF ÉLECTROCHIMIQUE

Publication
EP 3832772 A4 20220420 (EN)

Application
EP 19844834 A 20190730

Priority

- JP 2018145252 A 20180801
- JP 2019029764 W 20190730

Abstract (en)
[origin: EP3832772A1] Provided is an electrolytic solution for an electrochemical device including a magnesium electrode as a negative electrode, the electrolytic solution containing: a solvent containing a linear ether; and a magnesium salt contained in the solvent. In the electrolytic solution, the linear ether has two or more ethyleneoxy structural units represented by a following general formula. wherein, $R^{>1}$ and $R^{>2}$ are each independently a hydrocarbon group having 1 to 10 inclusive carbon atoms, and n is an integer of 2 to 10 inclusive.

IPC 8 full level
H01G 11/30 (2013.01); **H01G 11/60** (2013.01); **H01G 11/62** (2013.01); **H01M 4/38** (2006.01); **H01M 10/054** (2010.01); **H01M 10/0568** (2010.01); **H01M 10/0569** (2010.01)

CPC (source: EP US)
H01G 11/30 (2013.01 - EP); **H01G 11/60** (2013.01 - EP); **H01G 11/62** (2013.01 - EP); **H01M 4/38** (2013.01 - EP); **H01M 4/381** (2013.01 - EP); **H01M 4/466** (2013.01 - US); **H01M 10/054** (2013.01 - EP); **H01M 10/0568** (2013.01 - EP); **H01M 10/0569** (2013.01 - EP US); **H01M 10/36** (2013.01 - US); **H01M 2004/027** (2013.01 - US); **H01M 2004/028** (2013.01 - US); **H01M 2300/0028** (2013.01 - EP US); **Y02T 10/70** (2013.01 - EP)

Citation (search report)

- [X] DE 102016010933 A1 20170330 - DAIMLER AG [DE]
- [X] US 2012107698 A1 20120503 - MULDOON JOHN [US], et al
- [X] NIYA SA ET AL: "Role of Chloride for a Simple, Non-Grignard Mg Electrolyte in Ether-Based Solvents", APPLIED MATERIALS & INTERFACES, vol. 8, no. 25, 14 June 2016 (2016-06-14), US, pages 16002 - 16008, XP055684289, ISSN: 1944-8244, DOI: 10.1021/acsami.6b03193
- See references of WO 2020027099A1

Designated contracting state (EPC)
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DOCDB simple family (publication)
EP 3832772 A1 20210609; EP 3832772 A4 20220420; CN 112534622 A 20210319; JP 7107372 B2 20220727; JP WO2020027099 A1 20210812; US 2021151803 A1 20210520; WO 2020027099 A1 20200206

DOCDB simple family (application)
EP 19844834 A 20190730; CN 201980051259 A 20190730; JP 2019029764 W 20190730; JP 2020534653 A 20190730; US 202117162393 A 20210129